

Date: Fri, 19 Feb 93 04:30:18 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #233
To: Info-Hams

Info-Hams Digest Fri, 19 Feb 93 Volume 93 : Issue 233

Today's Topics:

AURORA WATCH: Middle Latitude Auroral Activity WATCH
 Constant 300 mhz plus signal in shop
 Grace DSP-12 vs. AEA DSP-1232 ? Opinions?
WARNING: Potential Geomagnetic Storm Warning

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 19 Feb 93 10:01:36 GMT
From: news-mail-gateway@ucsd.edu
Subject: AURORA WATCH: Middle Latitude Auroral Activity WATCH
To: info-hams@ucsd.edu

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MIDDLE LATITUDE AURORAL ACTIVITY WATCH

ISSUED: 08:20 UT, 19 FEBRUARY

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VALID UNTIL: 19:00 UTC ON 23 FEBRUARY

MODERATE RISK PERIOD: 20 - 23 FEBRUARY (UT days)

PREDICTED ACTIVITY INDICES FOR NEXT 3 DAYS: 35, 30, 23 (20 - 22 FEB)
(INPUT INTO THE PREDICTIVE AURORA SOFTWARE *)

POTENTIAL MAGNITUDE OF MIDDLE LATITUDE AURORAL ACTIVITY: MODERATE

EXPECTED LUNAR INTERFERENCE: NIL

OVERALL OPPORTUNITY FOR OBSERVATIONS FROM MIDDLE LATITUDES: FAIR TO GOOD

AURORAL ACTIVITY MAY BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

MOST OF THE NORTHERN U.S. STATES FROM WASHINGTON STATE TO IDAHO TO
SOUTHERN MONTANA TO SOUTH DAKOTA TO SOUTHERN MINNESOTA TO MICHIGAN TO
NORTHERN NEW YORK STATE TO NEW HAMPSHIRE AND MAINE.

ACTIVITY MAY ALSO BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

NORTHERN U.K. TO THE NORTHERN EUROPEAN REGIONS TO NORTHERN RUSSIA.
THERE IS A SLIGHT CHANCE SOUTHERN AUSTRALIAN AND/OR NEW ZEALAND SITES
MAY SPOT PERIODS OF ACTIVITY ON THE SOUTHERN HORIZON.

* Contact: Oler@Rho.Uleth.CA or Coler@Solar.Stanford.Edu for more information
regarding the Auroral Activity Prediction and Simulation Software.

SYNOPSIS...

Numerous minor solar flares on 18 February are believed to have generated several interplanetary disturbances. These shock fronts are expected to hit the Earth's magnetosphere on 20 February and elevate levels of auroral activity. Minor equatorward migration of the auroral ovals is anticipated. As well, the nearly new phase of the moon will provide a good opportunity for observers over the middle latitudes to attempt spotting auroral activity from dark sky sites. Additional potentially influential solar flares are expected to continue and may contribute additional episodes of activity throughout the coming week.

This WATCH will remain active until 19:00 UT on 23 February when it will either be updated or allowed to expire. Please note that the STD will be unable to update or upgrade this watch after 20 February due to equipment which is being turned off and moved from one location to another. Services to provide watches and warnings for auroral activity will continue after 27 February when things are restored to normal operation. We apologize for any inconvenience this may cause.

** End of Watch **

Date: Fri, 19 Feb 1993 02:36:56 GMT
From: usc!cs.utexas.edu!hermes.chpc.utexas.edu!news.utdallas.edu!
feenix.metronet.com!marcbg@network.UCSD.EDU
Subject: Constant 300 mhz plus signal in shop
To: info-hams@ucsd.edu

In article <1993Feb18.130355.1398@mala.bc.ca> wagner@mala.bc.ca writes:
>Just got a new Gold Star Frequency counter, and don't know what's on the dial.
>Plugged the beast in and put a short wire on the 1 ghz input. The beast shows
>a solid 382.8XXX (x's are variable) mhz signal. I have tried to track it down
>and don't know of any logical source.
>It is on my test bench at the college. I turned off all computers in the area
>and disconnected any television cable feeds.
>Am I actually getting a carrier or does this beast like to display this freq.?
>I can key the portable and it switches to the proper readout.
>I have a Canadian Forces Military installation about 1/2 mile away. Should I
>go over and tell the C/O to turn off his gear? Will it fry my grey matter?
>Is this the reason I hate coming to work?

A few suggestions Tom -

First, 382.8 IS a military air frequency, and it's possible that you may
be in line of some sort of beacon, but highly unlikely.

Another possibility is that you are getting something in the
cable TV feed. Cable TV RFI is very strong; it can carry for hundreds of
yards or more. So the frequency may not be coming from the cable TV feeds
near by, it may come from a repeater.

Still another possibility is that the counter just likes that frequency to
rest. Take it several miles away in a clear area and see what happens.

There are also ways of locating the signal, if it's not too strong, you
may be able to put an attenuator on the input and figure out the
direction. IF you want more info on direction finding, just ask around.

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Richardson, TX 75085-0472 | Amateur Radio Station N5MEI

Date: Fri, 19 Feb 1993 11:02:05 GMT
From: nntp.telebit.com!phr@uunet.uu.net
Subject: Grace DSP-12 vs. AEA DSP-1232 ? Opinions?
To: info-hams@ucsd.edu

There is no need for 16 bit A/D's and D/A's in amateur radio equipment. There is not 90 dB of dynamic range available out of the audio amplifier circuits in most transceivers and there certainly isn't enough dynamic range or linearity in the microphone amplifiers in most of these radios to justify 16 bit D/A's.

I don't think there has to be 90 db dynamic range from the audio amp (what does that mean anyway) for there to be two signals that a 16 bit converter can distinguish with greater probability of correctness than a lower resolution converter. High speed phone modems use very high resolution converters (16 bits) even though the a/d's in the phone system are 13 bits and the signal is then compressed to 8 bits. This is the only type of reason I can think of. I don't really understand this stuff and would appreciate a more detailed explanation.

Date: 19 Feb 93 09:54:04 GMT
From: news-mail-gateway@ucsd.edu
Subject: WARNING: Potential Geomagnetic Storm Warning
To: info-hams@ucsd.edu

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POTENTIAL MAJOR GEOMAGNETIC STORM WARNING

ISSUED: 08:20 UT, 19 FEBRUARY

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HIGH RISK PERIOD: 20 Feb - 21 Feb (UT days)
MODERATE RISK PERIOD: 20 Feb - 22 Feb

POTENTIAL LOW-MIDDLE LATITUDE STORM INTENSITY: MINOR
POTENTIAL HIGH LATITUDE STORM INTENSITY: MINOR - MAJOR

POTENTIAL DURATION OF GEOMAGNETIC STORM: 36 TO 48 HOURS

POTENTIAL PEAK LOW-MIDDLE LATITUDE K-INDEX VALUES: 6
POTENTIAL PEAK HIGH LATITUDE K-INDEX VALUES: 7

POTENTIAL FOR LOW LATITUDE HF DEGRADATION: LOW
POTENTIAL SEVERITY OF HF DEGRADATION: MINOR
EXPECTED HF PROPAGATION CONDITIONS: GOOD

POTENTIAL FOR MIDDLE LATITUDE HF DEGRADATION: MODERATE
POTENTIAL SEVERITY OF HF DEGRADATION: MINOR

EXPECTED HF PROPAGATION CONDITIONS: GOOD - FAIR (OCCASIONALLY POOR)

POTENTIAL FOR HIGH LATITUDE HF DEGRADATION: HIGH

POTENTIAL SEVERITY OF HF DEGRADATION: MINOR - MAJOR

EXPECTED HF PROPAGATION CONDITIONS: POOR TO VERY POOR

POTENTIAL RISK FOR GEOSYNCHRONOUS MAGNETOPAUSE CROSSINGS: 40 %

SUSPECTED SOURCE OF OBSERVED/EXPECTED ACTIVITY: Several minor M-class Flares.

EST. POTENTIAL GEOMAGNETIC IMPACT

SEVERE STORM : 05 %
MAJOR STORM : 25 %
MINOR STORM : 45 %
ACTIVE OR LESS : 25 %

PROBABLE SI ASSOCIATION : 70%

EST. POTENTIAL IONOSPHERIC IMPACT

LOW LATITUDES : MINOR
MIDDLE LATITUDES : MINOR
HIGH LATITUDES : MINOR - MAJOR
POLAR LATITUDES : MINOR - MAJOR

ESTIMATED GLOBAL IMPACT: MINOR

** End of Warning **

End of Info-Hams Digest V93 #233
